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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,620	08/07/2001	Marcus Tong	2001P4227US01	3155

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Siemens Corporation
Attn: Elsa Keller, Legal Administrator
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

CHANG, RICHARD

.ART UNIT PAPER NUMBER

2616

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,620

Applicant(s)

TONG ET AL.

Examiner

Richard Chang

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 14, 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 14 and 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2005 has been entered.

Claims 11, 13 and 15-18 had been canceled.

Claim Objections

2. Claims 5 and 17 are objected to because of the following informalities:

Regarding to Claims 1, 5 and 19, the preamble of the claim "a system" is too general and unclear. It does not specify any operational environment and conditions for a special application, in this case, voice/audio transmission in wireless communication.

Regarding to Claims 12 and 14, the preamble of the claim "a method" is too general and unclear. It does not specify any operational environment and conditions for a special application, in this case, voice/audio transmission in wireless communication

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, 12, 14, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent US patent No. 6,049,565 ("Paradine et al.") in view of US patent No. 5,327,391 ("Hirata").

Regarding claims 1, 5, 12, 14, and 19, Paradine et al. teach an audio communication method and apparatus over network traffic (See Fig. 1) comprising of

an audio input (305),

an audio output (340),

interface circuitry comprising first and second jitter buffers (320 double buffer) operably coupling the audio input (305) to a voice encoder DSP (315) and third and fourth jitter buffers (330 double buffer) operably coupling the audio output (340) to a voice decoder DSP (315),

wherein the first or second jitter buffers (320 double buffer for audio IN path) alternately fill at a first clock frequency (sampling clock via 305 CODEC circuitry block) and empty at a second clock frequency (clock on DSP side for network interface) (see Col. 4, lines 27-50),

wherein alternation between the first and second jitter buffers occurs at the second clock frequency (CCITT G.711 format 8 ms frame for DSP/network interface, See Col. 5, lines 55-65), and

wherein the third or fourth jitter buffers (330 double buffer for audio OUT path) alternately fill at the second clock frequency (clock on DSP side for network interface) and empty at the first clock frequency (sampling clock via 305 CODEC circuitry block), wherein alternation between the third and fourth jitter buffers (330 double buffer) occurs at the second clock frequency (CCITT G.711 8 ms format frame for DSP/network interface, See Col. 5, lines 55-65).

Paradine et al. teaches substantially all the claimed invention but did not disclose expressly the detailed structure of the double buffers besides their functionality and application.

Hirata teaches that the rate adaptation and jitter smoothing method with the double buffer structure comprising of

providing first circuitry (21, 25-1 and 25-2) in a first clock (101) domain operable at a first clock (101) frequency,

providing second circuitry (22, 26-1 and 26-2) in a second clock (103) domain operable at a second clock (103) frequency,

providing first and second jitter buffers (24-1 and 24-2) interfacing between the first circuitry (11) and the second circuitry (12) domain,

wherein the first or second jitter buffers (24-1 and 24-2) alternately fill at the first clock (101) frequency and empty at the second clock (103) frequency,

wherein alternation between the third and second fourth buffers (24-1 and 24-2) occurs at the second clocking frequency (104) (See Fig. 1, Col 4, lines 4-49), and

the alternation of the first or second jitter buffers and the third and second fourth buffers occurs simultaneously at the second clocking frequency (104) (See Fig. 2, Col. 8, lines 43-62).

A person of ordinary skill in the art would have been motivated to employ Hirata in Paradine et al. in order to obtain a method to manage double buffers across two different clock domains for transmission of voice over network and to take advantage of utilizing double buffers across different clock domains in claims 1, 5, 12, 14, and 19.

The suggestion/motivation to do so would have been to utilize double buffers across different clock domains, as suggested by Hirata in Col 4, lines 4-49. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Hirata with the Paradine et al. to obtain the inventions specified in claims 1, 5, 12, 14, and 19.

Regarding claim 2, this claim has similar limitation as claim 1 and Paradine et al. further teach that the first circuitry comprising an audio input (305 microphone), the second circuitry comprising an encoder (315 DSP1) (See Fig. 7), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 3, this claim has similar limitation as claim 1 and Paradine et al. further teach that the first circuitry comprising an audio input (340 speaker), the second circuitry comprising an decoder (315 DSP2) (See Fig. 7), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 6, this claim has similar limitation as claim 1 and Paradine et al. further teach that the interface circuitry comprising one or more digital signal processors

(DSP) (See Col. 4, lines 43-50), thus it is rejected with the same rationale applied against claim 1 above.

Regarding claims 4 and 7-8, these claims have similar limitation as claims 1, 6 and 17 and Paradine et al. further teach that the first clock frequency comprising an audio 44.1 Khz sample clock (see Col. 4, lines 27-50), and the second clock frequency comprising a G711 compatible 8 ms frame clock (See Col. 5, lines 55-65), thus it is rejected with the same rationale applied against claims 1, 6 and 17 above.

Regarding claims 9-10, these claims have similar limitation as claim 8 and Paradine et al. further teach that that the encoded voice data may be G711 compatible 8 ms frame based as 64 samples (See Col. 5, lines 55-65), it is equivalent to a 20 ms frame with 160 samples plus buffering for overflow as 165 samples per frame (See Col. 6, lines 46-50), thus it is rejected with the same rationale applied against claim 8 above.

Regarding claim 20, this claim has similar limitation as claim 19 and Paradine et al. further teach that the encoded voice data may be transmitted based on CCITT G.711 format as 8 ms frame per voice data block, this is applicable to different frame sizes voice codec such as GSM phone (See col. 6, lines 56-65), thus it is rejected with the same rationale applied against claim 19 above.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chang whose telephone number is (571) 272-3129. The examiner can normally be reached on Monday - Friday from 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rk
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